

Essay:

# The gift of the hinterland

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Creating an entire city is something hard to plan, even now we know we are supposed to. Since Brasilia was founded in the 1950s, the brand-new customised city has, like the ex-urban garden suburb, gone out of fashion. Many of the cities with which we are familiar were laid out according to a great visionary experiment based on plans created over two millennia ago. The most enduring models are military: a grid of squares first promoted by Alexander the Great, or the castle or fort town on an important river or sea port. The model did not guarantee sustainability. What powered a city's survival was its capacity to adapt to circumstances, not plans.

Whatever its first function – city state, sea port, market-town, imperial capital – an urban centre always needs a hinterland to support it. Cities on every continent have disappeared into desert or jungle because the lands that surrounded them were lost, stolen or worn out. Rome and Athens continue to adapt, but why did the civilisation of Medieval Zimbabwe disappear? The human tendency to destroy hinterland cannot be exaggerated. Before the first cities, human activity set the process of terminal environmental degradation in motion. Cute though they seem when marshalled by a ragged lad tootling a flute, insatiable goat herds have been a persistent and efficient agent of desertification ever since the dawn of pastoralism. The Romans de-forested Sicily to build their navies. The Greeks did the same to islands in the Aegean. These days, global cities require global hinterlands. And so their sustainability is an international issue.

The reason for setting up a city may not explain why it has been sustained. The first impulse may be to display power, either at the centre of an empire or at its edges. But what starts as a fortress for the king, or a boundary fort to repel or contain barbarians, survives the fall of empire only if it becomes useful to traders. I know three very different civic entities which survived by evolving beyond their founding function. One began as a minor city-state in the archaic era of Greece, the second was a Roman town set up to define the boundary of the empire's control in Britain, and the third was created as the centre of a new empire in Japan. This last city, Kyoto, is perhaps the most ambiguous of all. In all its ancient, spiritual and architectural splendour, it began with an unpretentious and efficient imperative: a castle town to house the emperor and his army. Now, Kyoto must depend for its future on that most dubious of all

aspects of postwar modernism – the nuclear fuel cycle which, for it all its claims of self-sufficiency, needs a global hinterland.

Some towns have been sustained by modest hinterlands. Chester, where I went to school in England in the early 1950s, got its name from the Latin for camp, *castra* (although the Romans called it *Deva*). Its reason for being was military – the subjugation of neighbouring Wales. After the legions left, Chester slowly changed into a centre of regional commerce. Not only are the footings of its Roman walls still visible, they provide usable walkways which define the inner town. Instead of surviving as decaying Medieval lumps, Chester's old red sandstone walls still circle the city, the form of which is simply a cross of two intersecting streets which pass out through three surviving substantial gates. The walls continue to provide the means for people to negotiate the city entirely on foot, and as 'recently' as 1644 helped the local royalists survive a fifteen-month siege by the forces of Oliver Cromwell.

The central part of Chester is still well populated with half-timbered black and white cottage buildings with mullioned windows and steep, slated roofs. It seems archetypically 'ye olde', but is also quite strange and unique; running along three of the four main streets are elevated walkways known as 'the rows', wooden or stone pavements above the ceilings of ground-floor shops, with another level of businesses and residences overhead. The rows were not planned; they just grew from the lines of street stalls, but eventually removed pedestrians from the street and the weather. To pass along the older parts of the Watergate and Bridge Street rows, you need to duck your head to miss the old black oak beams, and the floor level often changes from shop to shop. It is possible for pedestrians to get around a lot of the town without ever descending to pavement level, although at the end of each block, you climb down narrow stairs, cross a street or lane, and climb up to the next section.

It may be hard to see, but the original ground plan of the army camp was the strongest influence on the development of Chester's form, long after it shifted to a completely different function. The rows were the focus of its evolved purpose as a centre for the trade in farm produce from the rich county of Cheshire. In the twelfth century, the town acquired a wide-open market square, consolidated in the nineteenth century into a permanent interior hall, and in turn reconfigured into defiantly anti-Medieval stone and glass structure in 1970.

At no time in its post-Roman history did any power group or individual decide what Chester should become, but instead of slumping into obscurity when the Romans gave up trying to subjugate the Welsh, its commercial classes developed practical and profitable strategies for being. They kept the walls and the rows because they were both useful and protective. They were lucky the Roman site was conveniently on the border of Wales and the rich farm lands of Cheshire, and connected to coastal traffic through the wide estuary of the River Dee and the Irish Sea. In the late eighteenth century, the Shropshire Union canal linked the town to the Industrial Revolution's national

transport network. Chester has been sustained by an evolutionary adaptation to its changing hinterland. You couldn't find a more conservative and lucky city in the entire British Isles; its present population of eighty thousand has grown by a mere twenty thousand since I was at school there in the 1950s.

The small port town on the north-west coast of Lesbos, Mithimna, was founded around 1500 BC, about the time of the fall of Troy. Mithimna (usually known as Molivos) was one of the five ancient towns of Lesbos. Only two survived as living centres, the other being the island's capital Mytilene (the name by which most Greeks know Lesbos), a port town of thirty thousand people with an airport and a daily ferry link with Piraeus. To the north, across a strait less than ten kilometres wide, is the south-facing coast of Turkey, and the passage north to the Dardanelles and the Black Sea. As with Chester, the oldest relics on the island are ancient walls, this time made from huge polygonal stones, but in Molivos they are fragmentary. Some survive as quite complex ruins, others merely as relics, recycled in situ by opportunist shepherds using them for animal pens. Each stone would have taken half a dozen men to heave into place.

Even in Roman times, ancient Mithimna must have been a substantial city-state on the northernmost point of Lesbos, more or less watching over the strait between the island and that part of Asia Minor known as the Troad – its extended hinterland. Until the twentieth century, the islanders were sustained by the sea and wealth from groves and farms across the water. The Medieval city was not walled but protected by a Byzantine castle expanded by the Genoese, who ruled the island as a trading opportunity for a few centuries. The streets, lanes and alleys run in every direction, none of them on the level, laid out according to custom rather than plans, and the picturesque port is suitable only for shallow draft fishing boats. To the east is a two kilometre-long pebble beach backed by a valley of olive groves. During the Byzantine and Medieval eras, all the north-facing villages of Lesbos were attacked by piratical marauders, so the castle would have been a place of refuge rather than the projection of power. After the Turks occupied Lesbos at the end of the fifteenth century, Molivos slowly turned its back on the mainland to focus on the port and a great swathe of the old city-state decayed to nothing.

Lesbos is still comparatively rich in resources: twelve million olive trees in the valleys and climbing up the hills (on Medieval stone terraces), sheep and fish (although the Aegean is all but depleted), fruit and nut trees. Goats have nibbled some hillside pastures into dusty desolation, but the sheep have been more benign. When I first visited in 1970, the fishermen I met who also owned flocks were thought to be 'rich'. Olives might still sustain the island if the European Union had not assigned Italy and Spain the comparative advantage of production. The groves near Molivos yield a thick, dark-green viscous oil with a distinctive taste and smell of very high quality, virtually organic because few chemicals are used in cultivation – the Russian

Orthodox Church once recommended its priests use oil from Lesbos in their holy lamps because Italian oil was thought to be contaminated by cotton-seed oil. Ironically, oil from Lesbos is used to give cheap Italian oil a bit of quality.

When you arrive in Molivos, the first thing you see when you get off the bus is a large, square archaeological site, including several lidless sarcophagi, well excavated, but more or less left to their own devices to survive the natural erosion of the weather. Last time I was there, in July 2007, there wasn't even a sign pinned to the rudimentary wire fence to tell you what it is and who built it. The mayor wrings his hands, shrugs and says: 'Sorry, no budget to pay for its upkeep.'

Like Rome, Athens and Chester, Molivos has been continuously built over; only in our times have its rules of development been restricted by obligations to the preservation of heritage, and the heritage look. No one is allowed to build anything new in Molivos unless it is constructed and decorated with approved 'traditional' materials – grey or pink stone from the island's quarries, or besser bricks rendered with plaster and earthy hues of distemper. Roofs must be tiled and windows made to defined dimensions. With a few acceptable variations, householders comply with the rules, so the village on the hill stays pretty, while in the valley (which separates the town from the foothills), where the rules aren't so strict, the olive groves are spotted with pink and yellow 'studio' apartments, usually built on the highest bit of the plot, for the view.

Everywhere in town there are taps and fountains installed by the Turks during their five centuries of occupation, which ceased after a short war in 1912. In photographs taken around that time, minarets can easily be seen but none has survived. The only substantial relics of the Turkish era are a mosque, used as a cinema in the 1970s (now the offices of the town council) and a beautiful derelict bath-house, which no one has the interest or funds to restore.

Before the 'catastrophe' of 1923 when all Greeks were expelled from Turkey, losing their hinterland forever, grand houses were built in the 1880s by wealthy olive oil barons in a Turkish version of the Northern European or 'classical' style, including a handful in Molivos. Some are well preserved while others are gently decaying, their current ownership unknown, or too complex or mysterious to resolve. One house in Molivos could not be sold for years because it was thought to have been owned by sixteen cousins who had all emigrated.

The north side of Molivos has long gone, leaving only a windswept and treeless field rich in relics but occupied only by a cemetery, a donkey, a flock of sheep, the town tip and sewage outfall. When I first visited in 1970, I was told discreetly it was a great place to walk after a rainstorm – maybe an ancient bronze coin might have been washed to the surface. An American archaeologist told me last year that the bare evidence of what has been found from the Roman era alone indicates ancient Mithimna must have been a city-state of considerable regional importance.

Occasional government or university digs reveal footings of houses and streets, bath-houses, kilns and bakeries. A local archaeologist told me if it was excavated and promoted, the entire area could sustain the village as a tourist attraction that visitors would pay to see. The mayor and the business sector don't agree, so if the heritage police decide there's no point in preserving the old town as blank open space (it would cost millions to excavate), Molivos is likely to redevelop the ruin with tasteful holiday apartment resorts designed to appeal to a new wave of European tourists from Poland, Slovakia and the Ukraine.

Molivos's population of about fifteen hundred people is falling very gradually. In its modern heyday at the end of the nineteenth century, there were thousands more. These numbers could not be sustained without the Troad. Political events brought to this part of the world war and famine and since World War II the population has been depleted through emigration. The main source of sustenance is now tourism, which means a large proportion of the town has to derive a yearly income in five months. The elegant old olive oil factory on the beach, which was producing that thick green oil in the 1970s, is now a hotel, and from June through September the town's population swells threefold, as package tour holidaymakers from the sun-deprived north cram on to charter flights direct from Manchester, Amsterdam, Bratislava and Frankfurt.

The appeal of Lesbos is marginal. It is a large island, but not cutely Aegean like Mykonos – there are no scintillating blue and white windmills – and its mountains are forested with oaks as well as olives. The beaches are either darkly volcanic or pebbled, and the resorts can't compete with the budget luxury on offer across the water in Turkey.

Such is the shortage of local labour able or willing to do the old jobs on land or sea, the small Molivos fishing fleet has to recruit crews from Egypt, and the men digging roads or building holiday apartments are most likely from Albania. A decade ago, a trawler captain told me the Aegean's fish stocks would be depleted in two years. He is still going out in the winter months, but only because the decline he predicted means he gets a better price for prawns. Turkish fleets are not restricted by European Union sustainability rules, so the old hinterland of Asia-Minor is now the competition.

Lesbos has further been sustained in recent years by grants from the wider supportive hinterland of the EU (the funds go mostly for infrastructure to boost tourism). Without this money, the Greek economy would be even less viable. In 2006 about 2.6 per cent of gross domestic product came from grants, and in the five years to 2004 about \$20 billion was given to help finance the infrastructure for the Athens Olympics.

Although foreigners have a much more obvious and permanent presence in well-established communities in other parts of Europe, the migration of 'permanent' German, Dutch, British and Australian (not all of them returning Greeks) ex-pats



looking for the idyllic retirement life has been modest. Molivos house prices are high, so middle-class newcomers have to settle the hill villages where an old property sells for a third of the going rate in the town. It is difficult to know who is sustaining who in this situation. It's no longer seriously cheaper for Northern Europeans to live in the Aegean, especially since the notoriously inflated value of sterling has begun its inevitable slide.

Japan's cities lost their great resources hinterland in 1945. With modest coal reserves, no oil and several decades before China emerged as an energy-hungry powerhouse, Japan's great trading companies scoured the Asia-Pacific sewing up deals with reliable suppliers, including Australia, for oil, coal, gas and iron ore. First to survive and gradually to expand, Japan projected contradictory images of its essence. By 1955 the economy was back to the size it was before the war started. A decade later, the growth boom peaked. Japan seemed to be a nation of robotic workhorses bewildered by, but complicit with, modernity and still beguiled by the mysteries of their own traditional culture.

Old Japan – cherry blossoms and temple Japan – was epitomised by the seemingly immaculate preservation of the ancient wooden city of Kyoto. During the last months of the war, the US Air Force incinerated more than sixty of Japan's largest cities, but not Kyoto. It was a miracle of luck in war. Just as General Macarthur was to excuse Emperor Hirohito for his war crimes, Kyoto was saved by the civilised men of war. Or so the story goes.

Eventually, in the 1990s, even Kyoto gave in to the irresistible lure of modernity. The city which had survived more or less undisturbed for more than a thousand years was opened up to development. But, despite this sudden escalation, Kyoto was in the true sense of the word only ever a 'modern' city, built to order by the state according to the precepts of a functional town plan which afforded it less opportunity for natural evolution than most cities anywhere, especially places like Chester or Molivos.

The notion that Kyoto was 'saved' from the napalm and atomic campaigns that ended the war by civilised Americans keen to preserve its ancient relics is only partly true. Regardless of the 'total war' policy of the period, they apparently convinced the bombers it would have been an outrage to attack and burn the ancient treasures of Buddhist Japan. It is even taught in Japanese schools that influential American scholar and Japanophile Langdon Warner made a direct appeal to American generals to spare Nara, Kyoto and Kamakura, before a decision was made to remove them from the list of suitable targets. Ten years after the end of the war, Warner was posthumously awarded a Japanese imperial medal for his efforts, and there's a bronze statue of him outside the railway station at Kamakura.

Certainly Kyoto was never bombed, but was it really saved for itself? Historian Morio Yoshida argues that it was really 'saved from napalm' in preparation for the atomic bombing. By August 1945, when the atomic weapons were ready for use, great

swathes of those sixty Japanese cities had already been razed. There weren't many significant targets left. In June, the list was down to Kokura, Hiroshima, Niigata and Kyoto. On August 9, Kokura was obscured by clouds, and rather than take *Fat Boy* back to the Marianas, the B29 dropped it on Nagasaki. Kyoto was still on the list if more bombs were needed.

Kyoto was originally named Heian-kyo (tranquillity and peace), a brand-new city chosen in the late eighth century as the power base of the emperor Kammu. Except for the years of the Tokugawa shogunate, wherever the emperor lived was deemed to be the 'capital'. Kyoto was chosen for strategic reasons – to be as far as possible from the Buddhist monks who had meddled with politics in the old capital of Nara. Confined to the fringes of the new capital, this explains to some extent why so many Buddhist temples are hidden away in the foothills of the mountains that surround Kyoto on three sides. Those mountains also limit the city's indefinite expansion.

Kyoto was laid out in a square grid of streets modelled on the Chinese capital of Emperor Qin, Chang-an ('perpetual peace', now known as Xian). Qin founded the first imperial dynasty in China in the third century BC, constructed the first section of the Great Wall, and bequeathed to us the buried terracotta army. He also interred many of his critics alive. For Chang-an, Qin used the military camp plan brought to the east by Alexander, who left behind several camp-cities which were little more than garrison towns (many of which he named after himself or his horse). The model was lifted from the Assyrians, whose city streets were designed to be wide enough for military charioteers to make u-turns – all the better for clearing troublemakers. The rectangle of streets (given numbers rather than evocative names) became the favoured plan for scores of American cities and towns, and so the essence of utilitarian modernity is derived from an old-world military efficiency: straight streets are the best way for a new regime to impose order on a fledgling state. Kyoto's eighth century format fits perfectly well with Louis Sullivan's modernist diktat 'form follows function'. Modern though it was in 794, very little of the city was built from stone, and until the 1980s Kyoto was largely a low-rise wooden city. So it would have burned if it had been bombed with napalm.

The military model sustained the form of many different cities, but it was not necessarily square. Chester is a circle and Molivos a castle mound. Baron George Haussmann's plans for Paris, commissioned by Napoleon III after the revolutionary events of 1848, were designed to chase down rioters and destroy their barricades. Haussmann ripped out most of the Medieval warrens which were the breeding grounds and hiding places of the radical proletariat, and replaced them with a centrifugal wheel of boulevards connecting imperial palaces, parade grounds, major churches and the Louvre. All the soldiers' barracks in the new Paris were placed for easy access to Haussmann's spacious leafy spokes, which became known by planners as 'cannon shot boulevards'. Washington DC got a similar design described by Sibyl Moholy-Nagy as an 'imperial constellation'.

When I first moved into the Sydney suburb of Balmain in the mid-1970s, save for one deli, every shop closed at noon on Saturday. It was a hackneyed joke that you could fire a cannon down the street and hit nobody until Monday morning.

Writing in 1966, Moholy-Nagy (professor of urban design theory and widow of the Hungarian Bauhaus theorist) thought Haussmann's designs contributed to the traffic woes of modern Paris because they removed the 'connective tissue' of the narrow streets and ignored the need for connections with the country beyond the city limits. It was a 'hierarchical arrangement' which insisted 'the existing core of patriotic significance was visible'. The scheme's grandiosity sent the city into bankruptcy.

By the time of the Tang dynasty, Chang-an was probably the biggest city in the world, and for Kyoto's imperial planners its grid plan was the essence of eighth century civic modernity, replicated over the centuries from Manhattan to Melbourne. In Kyoto, between the emperor's new palace and the river, the names of the east-west streets in the grid were numbers. The matrix expanded until it filled all the flat land, and Kyoto could only extend itself vertically. The matrix also related to the basic module of Japanese living: the rectangular straw tatami mat, which Moholy-Nagy claimed was the base for the entire Japanese environment from toilet seat to kimono, from house to city plan – the direct forerunner of the Bauhaus principle.

Kyoto remained the imperial capital until the revolution of 1868 removed the young emperor Meiji to Edo, renamed it Tokyo (eastern capital) and began the great imperialist project to 'reclaim' Japan's great resources hinterland in Asia. Heian-kyo became 'western capital' – Kyoto.

Although we think of it as truly ancient, Kyoto has embellished the matrix of modernity created for it in 794. It now has more 24/7 convenience stores per head of population than any other Japanese city, a fact supplied by an American, Marc Keane, who makes a living designing gardens and tea houses for his Japanese clients.

In 1994, Keane's enthusiasm for, and understanding of, the old ways inspired him to start Kyoto Mitate, a group of urban design optimists who wanted to promote and preserve traditional skills and environments. The word *mitate* means to retrieve and reuse discarded objects or materials in creative ways. Keane thought it might be possible to retrieve Kyoto from modernity by transforming it (back) into a 'slow' city. At the end of the war, he says: 'It was a kind of layered existence ... old businesses had shopfronts or workshops on the street and with living quarters and a storehouse further back, each function defined only by a hanging cloth in the doorway.'

Since 1994, seventeen buildings or precincts (mostly the Buddhist temples in the foothills) have been listed as UNESCO World Heritage sites, but keeping old, slow Kyoto may prove impossible. There has been so much new building, traditional Kyoto icons seem less integral to the grid. The bombers might have spared the wooden city, but the developers have not. 'Preservation,' says Keane, 'is seen as a bottleneck.'



The breakthrough (for the developers) came in 1994, the 1200th anniversary of the city's founding, with the construction of a new central railway station. That might seem like no big deal, but until the seventy metre-high, ten-storey structure – as long as an aircraft carrier and appointed like an airport terminal – was built, save for an ancient pagoda there were no buildings above six storeys in Kyoto. The station soon became an intimidating monstrosity to traditionalists and an appealing beacon to modernists, the place to go and be, regardless of whether you were catching a train.

The focus of the station is a vast open vault, enclosed by a five hundred-room hotel, a theatre, a score of restaurants (the tenth level has nothing but ramen noodle shops), game parlours and an Astro Boy exhibition hall. In one vertiginous swoop, escalators plunge through the atrium ten storeys to the platform level. When you stand at the top, it is like looking down a ski-jump. The architect Hiroshi Hara says he wanted to evoke Rome's Spanish Steps. 'Kyoto Station is the ultramodern heart of Kyoto,' says a blog published by Gizmo last year. Other contributors were gob-smacked by its glass and steel majesty: 'Amazing. On a nice day it's so nice to climb up all those stairs.' Kyoto Station marks the divide between those who say the sustainability of the planet must be achieved through reversion to ancient wisdom and benign practice and those who believe that the technology of market modernity is the only way we can be saved. Its most belligerent opponents were Buddhist monks. As predicted by most objectors, the station broke Kyoto's low-rise mould. Because the city had reached the physical limits of its expansion – the foothills on three sides and rivers to the south – building up or selling air space for hotels and shops was the only means by which it could expand its total floor space. Before the station came, the twenty-storey steel, concrete and glass (and, of course, solar-powered) Kyocera building would have been unthinkable.

The process which enabled the breakthrough came in the mid-1980s, courtesy of the national government of Yasuhiro Nakasone, which privatised Japan's National Railways (now known as JR). Just as Chang-an was Kyoto's development model, Kyoto became the model for land-needy developers in middle sized cities. There were no public funds available, so wherever an old JR station needed modernising, a company or consortium moved in with a design proposal which included a profitable commercial complex built on top of the station terminal. Because of Kyoto's special space limitations, its new station became the national icon of this model. As Marc Keane puts it: 'It had to be large and modern, a message to the state and business that Kyoto was not kimonos and gardens but modern. So they scream it across the landscape. Every station now has a hotel, department store, and all kinds of shops and businesses. Kyoto just got the biggest one.'

The terminus, says Keane, also acts as a huge screening 'wall', a whopping great room divider between the edge of the old imperial wooden city and the less appealing, poor part of Kyoto, which has always been devoid of heritage attractions south of the river.

There's another ironic twist to Kyoto's complex relationship with the ancient precepts that gave us modernism. Just as Molivos depends on the EU for its sustenance, and Chester feeds off the farms and businesses of Cheshire, there is another more monstrous grid of hinterland sustainability on which Kyoto must now rely for its future survival. One of Japan's most ambitious engineering projects of the past fifty years is the nationwide network of nuclear power stations known as *genpatsu*. Currently, they supply about one-third of Japan's electricity – a large proportion of which is sucked up by the national and suburban railway networks and their luxurious multi-purpose stations. Official policy is to boost Japan's share of nuclear-provided electricity to 60 per cent by 2050.

Around the country, always on the coast, there are more than fifty *genpatsu*, but the densest cluster is north of Kyoto, beyond the great freshwater Lake Biwa, on the bays and beaches of the prefecture of Fukui. They call this coast the 'nuclear Ginza' because there are more *genpatsu* there – a staggering fifteen all told – than there are department stores in Tokyo's premium retail precinct, the Ginza. And it is the nuclear stations which supply the Japan's Kansai region, the industrial heart around Osaka and Kobe, as well as Kyoto.

In the mid-1950s the government decided nuclear energy would make Japan's energy resources self-sufficient and sustainable – a network of commercial fast breeder reactors (FBRs) which could create more fissile fuel than they consumed. The first commercial reactor is due north of Kyoto, on the beach of a tiny village on the otherwise beautiful Wakasa Bay. It is named Monju after the bodhisattva who sits at the right hand of Buddha. An earlier prototype was named Fugen, the bodhisattva at Buddha's left. These two figures can be seen outside many a temple entrance around the fringes of Kyoto.

As well as Buddhist spirituality, Monju's designers had a lot in common with the fantasy inventor William Heath Robinson. They were, in effect, trying to create a perpetual motion machine, and the layout of its pipes and wiring is on a colossal scale – every bit as complicated as one of Robinson's contraptions. Just around the time Kyoto station was nearing completion, Monju's liquid sodium cooling system sprang a leak and the entire complex had to be shut down for a decade.

Monju is due for a reboot sometime this year; the outcome will make or break the argument that FBRs are a source of endless 'free' energy. A lot of people who don't like nuclear power think it is a bit risky starting up any reactor that has been in mothballs since 1995. Meanwhile, people in Kyoto probably don't think too much about their new seemingly magic energy hinterland any more than they realise their beautifully straight streets were designed for the benefit of an imperial army.

Kyoto's revered reputation as the living embodiment of traditional, sacred Japan is rarely challenged at home or abroad. Its spiritual appeal is self-defining. But, like

Osaka or Yokohama, a lot of Kyoto's environment can be messy and confusing. Even without the new generation of tall buildings ushered in by the development of the station, there's plenty of poorly built low-rise concrete drek and, as with any Japanese city, infrastructural 'upgrades' have been clumsy and unsightly. The streets follow the ancient plan, but few of them are quaint. The temple and palaces survive because they are secured behind high walls or way out on the fringes of the grid, protected by woods, surrounded by pine trees, gravel gardens or stones that have 'souls' and monks who preserve the aesthetic of ceremonial ritual. On the east side, the Gion district has the only collection of wholly wooden streets, and in the middle of the day authentic (if garish-looking) *geisha* hobble between the tea houses on clacking wooden sandals. But even here the streets are draped with thick and ugly electric wiring (as they are in Molivos), the antique sewerage system often fails, and the roar of fuming traffic is never far away.

Kyoto is no longer what we might want it to be, if it ever was. Like every other city, it depends for its survival on civilisation's dangerous energy solution. So does Chester; a quarter of Britain's electricity also comes from nuclear power. Greece is still burning imported coal.

Nuclear power, devised in the 1950s when modernism was at its most unself-critical, is the ultimate risk strategy, the evolutionary end-point for military settlements founded to protect empires great and small. All three of these towns embody the romantic attachments we have for antiquity, but no matter how well that heritage has weathered and softened, the future sustainability of cities seems to be approaching a murky destiny. Already, Kyoto and Chester have their own nuclear hinterlands, and if the pragmatic acceptance of nuclear power continues to expand, it seems likely that one day so will dear little Molivos. ■